

dictors of thrombolysis failure ( $p=0.006$ ,  $OR=0.13$  for class III,  $p=0.003$ ,  $OR=0.15$  for class IV).

**Conclusion:** In our MIRAMI Registry, short time to treatment ( $< 3$  hours), smoking and inferior location of STEMI were predictors of thrombolysis success, whereas severe heart failure was a predictor of its failure.

## 007

### Very late stent thrombosis after drug eluting stent implantation: assessment of a management therapy guided by IVUS imaging

Gilles Barone-Rochette [Orateur] (1), Estelle Vautrin (2), Stéphanie Marlière (1), Hélène Bouvaist (1), Gérard Vanzetto (1), Jacques Machecourt (2) (1) *CHU Grenoble, USIC, Grenoble, France* – (2) *CHU Grenoble, Cardiologie, Grenoble, France*

**Background:** Very late stent thrombosis (VLST) of Drug Eluting Stents (DES) is a rare but severe complication whose physiopathology and management remain unclear.

**Aim:** We carried out a prospective systematic analysis DES mechanical structure with intravascular ultrasound (IVUS) for all patients who presented with VLST. After this analysis, we proposed a VLST management therapy.

**Methods:** Between June 2009 and August 2010, we included consecutively all cases of VLST (definite ST with any Academic Research Consortium definition) in our university hospital. All patients underwent IVUS imaging. A VLST management therapy was proposed with balloon angioplasty if malapposition or underexpansion were detected. One year follow up was performed.

**Results:** Ten cases (9 men, 1 woman; mean age 61 years [39-81]) were identified. The index procedure indication was acute coronary syndrome in 8 patients and stable pectoris angina in 2 patients. The mean duration from implantation to thrombosis was  $52 \pm 15$  months (range 19 to 66 months). All patients except one had a correct anti-aggregation therapy at the moment of VLST. All patients analysed with IVUS imaging had evidence of stent underexpansion and/or malapposition. During interventions IVUS findings led to the use of higher pressures or larger balloons than those used during initial stenting. After the procedure the final minimum stent area ( $10.5$  vs.  $7.9$  mm<sup>2</sup>,  $p=0.03$ ) and % stent expansion improved compared with pre-interventional values ( $86$  vs.  $66\%$ ,  $p=0.03$ ). At the follow-up ( $15 \pm 4.5$  months), all patients are alive without new MACEs (cardiac death, non fatal infarction and ST).

**Conclusion:** In VLST management, the selective use of IVUS after an initial mechanical reperfusion is an attractive option to optimise mechanical stent features and appeared effective and safe at 1 year follow-up.

## 008

### Unprotected left main stenting in the real world: five-year outcomes of the French left main Taxus registry

Marie-Claude Morice (1), Darren Mylotte [Orateur] (1), Brahim Meftout (1), Anouska Moynagh (1), Beatriz Vaquerizo (1), Olivier Darremont (2), Marc Silvestri (3), Yves Louvard (1), Jean-Louis Leymarie (2), Thierry Lefèvre (1), Philippe Garot (1) (1) *Institut Hospitalier Jacques Cartier, Institut Cardiovasculaire Paris Sud, Massy, France* – (2) *Clinique Saint-Augustin, Bordeaux, France* – (3) *UCV, Marseille, France*

**Background:** Limited long-term outcome data is available to support the use of drug-eluting stents in the treatment of unprotected left main (LM) coronary artery disease.

**Methods and Results:** In this multicenter registry, 291 patients with unprotected LM stenosis underwent percutaneous revascularization with paclitaxel-eluting stents (Taxus Express), using a consistent technical approach for both ostial/shaft and bifurcation lesions (provisional side-branch stenting). At 5 years, the cumulative incidence of major adverse cardiac events (MACE) was 23.6%, and the crude rates of all-cause and cardiac death were 24.3% and 12.5% respectively. During follow-up, myocardial infarction occurred in 16 patients (6.1%) and the incidence of target lesion revascularization (TLR) was 10.3%. Definite stent thrombosis occurred in 0.4%. There was no signif-

icant difference in outcomes between patients with ostial/shaft or bifurcation lesions. In contrast, patients with distal LM lesions requiring two-stent procedures had a higher rate of MACE than patients with single-stent interventions (34.1% versus 17.8%,  $P=0.009$ ). This was driven by an increased incidence of cardiac death (18.2% versus 8.5%,  $P=0.05$ ) and non-Q-wave MI (8.0% versus 1.7%,  $P=0.04$ ) in the two-stent cohort. Patients with diabetes mellitus had an increased rate of TLR compared to nondiabetic subjects (19.2% versus 6.8%,  $P=0.005$ ), and diabetes was an independent predictor of MACE at 5 years ( $OR$  2.10, 95% CI 1.10-3.99,  $P=0.018$ ).

**Conclusions:** These long-term results show that the treatment of unprotected LM stenosis with paclitaxel-eluting stents is safe and efficacious. Outcomes are similar for ostial/shaft and distal LM interventions, however single-stent interventions should be the preferred strategy for distal LM lesions, as two-stent techniques increase the risk of adverse events.

## 009

### Still a place for DES for PCI of short ( $\leq 15$ mm) coronary lesions in large ( $\geq 3.0$ mm) vessels in patients with diabetes mellitus?

Olivier Barthelemy [Orateur], G. Helft, Anne Bellemain-Appaix, J. Silvain, F. Beygui, R. Choussat, Emmanuel Berman, Jean Philippe Collet, G. Montalescot, Jean Philippe Metzger, Claude Le Feuvre AP-HP, CHU Pitié-Salpêtrière, Cardiologie Médicale, Paris, France

**Aim:** To compare drug-eluting stent (DES) vs bare metal stent (BMS) in diabetic patients treated by percutaneous coronary intervention (PCI) for short lesions in large vessels (vessel diameter  $\geq 3.0$  mm AND length  $\leq 15$  mm).

**Methods:** Consecutive patients treated with at least one large ( $\geq 3.0$  mm) and short ( $\leq 18$  mm) stent were included over 29 months. Patients with MI, cardiogenic shock or out-of-hospital cardiac arrest were excluded. We compare the occurrence of 1) MACCE (cardiovascular (CV) death, myocardial infarction and stroke), 2) Target Vessel (TVR) and – Lesion Revascularization (TLR) and 3) definite Stent Thrombosis (ST) rates in the diabetic population according to the type of stent used (DES vs BMS).

**Results:** Six hundred eighty-six patients underwent PCI in large and short lesions. Among the 189 (28%) patients with diabetes, 47% ( $n=89$ ) had PCI with BMS and 53% ( $n=100$ ) with DES. Mean age was  $66 \pm 11$  years, 34% ( $n=64$ ) had acute coronary syndrome. Patients treated with DES were younger ( $64$  vs.  $69$ ,  $p=0.001$ ), had more prior PCI (41% vs. 22%,  $p=0.006$ ) and more multivessel disease (63% vs. 45%,  $p=0.013$ ). Total stent length was higher in the DES group ( $28 \pm 22$  mm vs.  $22 \pm 16$  mm,  $p=0.043$ ). One year follow-up was completed for 100% of the patients. Twenty patients (10.5%) had MACCE, 17 (9.0%) TVR, 12 (6.3%) TLR and 3 (1.6%) ST. Figure shows event rates according to the stent used.

**Conclusions:** In diabetic patients treated by elective or emergent PCI of short lesions in large vessels, comparable rates of TLR, TVR and Stent thrombosis were observed between DES and BMS. However, the DES group had a higher risk profile of restenosis.

